

STATE OF SOUTH CAROLINA

(Caption of Case)

In Re: Combined Application of South Carolina  
Electric & Gas Company for a Certificate of  
Environmental Compatibility and Public  
Convenience and Necessity and for a Base Load  
Review Order for the Construction and Operation of  
a Nuclear Facility at Jenkinsv

BEFORE THE  
PUBLIC SERVICE COMMISSION  
OF SOUTH CAROLINA

COPY

Noted: led

COVER SHEET

Dept: S.A.

Date: 8/14/08

DOCKET

Time: 3:55

NUMBER: 2008 - 196 - E

(Please type or print)

Submitted by: Robert Guild  
Attorney at Law

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NOTE: The cover sheet and information contained herein neither replaces nor supplements the filing and service of pleadings or other papers as required by law. This form is required for use by the Public Service Commission of South Carolina for the purpose of docketing and must be filled out completely.

**DOCKETING INFORMATION** (Check all that apply)

☐ Emergency Relief demanded in petition ☐ Request for item to be placed on Commission's Agenda expeditiously

☐ Other:

INDUSTRY (Check one)	NATURE OF ACTION (Check all that apply)		
<input checked="" type="checkbox"/> Electric	<input type="checkbox"/> Affidavit	<input type="checkbox"/> Letter	<input type="checkbox"/> Request
<input type="checkbox"/> Electric/Gas	<input type="checkbox"/> Agreement	<input type="checkbox"/> Memorandum	<input type="checkbox"/> Request for Certification
<input type="checkbox"/> Electric/Telecommunications	<input type="checkbox"/> Answer	<input type="checkbox"/> Motion	<input type="checkbox"/> Request for Investigation
<input type="checkbox"/> Electric/Water	<input type="checkbox"/> Appellate Review	<input type="checkbox"/> Objection	<input type="checkbox"/> Resale Agreement
<input type="checkbox"/> Electric/Water/Telecom.	<input type="checkbox"/> Application	<input type="checkbox"/> Petition	<input type="checkbox"/> Resale Amendment
<input type="checkbox"/> Electric/Water/Sewer	<input type="checkbox"/> Brief	<input type="checkbox"/> Petition for Reconsideration	<input type="checkbox"/> Reservation Letter
<input type="checkbox"/> Gas	<input type="checkbox"/> Certificate	<input type="checkbox"/> Petition for Rulemaking	<input type="checkbox"/> Response
<input type="checkbox"/> Railroad	<input type="checkbox"/> Comments	<input type="checkbox"/> Petition for Rule to Show Cause	<input type="checkbox"/> Response to Discovery
<input type="checkbox"/> Sewer	<input type="checkbox"/> Complaint	<input checked="" type="checkbox"/> Petition to Intervene	<input type="checkbox"/> Return to Petition
<input type="checkbox"/> Telecommunications	<input type="checkbox"/> Consent Order	<input type="checkbox"/> Petition to Intervene Out of Time	<input type="checkbox"/> Stipulation
<input type="checkbox"/> Transportation	<input type="checkbox"/> Discovery	<input type="checkbox"/> Prefiled Testimony	<input type="checkbox"/> Subpoena
<input type="checkbox"/> Water	<input type="checkbox"/> Exhibit	<input type="checkbox"/> Promotion	<input type="checkbox"/> Tariff
<input type="checkbox"/> Water/Sewer	<input type="checkbox"/> Expedited Consideration	<input type="checkbox"/> Proposed Order	<input type="checkbox"/> Other:
<input type="checkbox"/> Administrative Matter	<input type="checkbox"/> Interconnection Agreement	<input type="checkbox"/> Protest	
<input type="checkbox"/> Other:	<input type="checkbox"/> Interconnection Amendment	<input type="checkbox"/> Publisher's Affidavit	

RETURN DATE: 8/20/08  
SERVICE: Served Lawrence P. Newton

VIA U.S. mail led  
8/14/08

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# ROBERT GUILD

Attorney at Law

314 Pall Mall • Columbia, South Carolina 29201 • 803-252-1419

August 13, 2008

Mr. Charles Terreni  
Chief Clerk  
Public Service Commission of South Carolina  
Synergy business Park, Saluda Building  
101 Executive Center Drive  
Columbia, SC 29210

SC PUBLIC SERVICE  
COMMISSION

2008 AUG 13 PM 2:23

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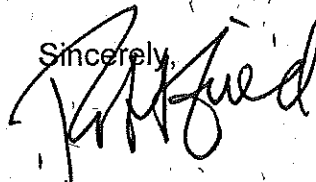
In Re: Combined Application of South Carolina Electric & Gas Company for a  
Certificate of Environmental Compatibility and Public Convenience and  
Necessity and for a Base Load Review Order for the Construction and Operation  
of a Nuclear Facility at Jenkinsville, South Carolina  
Docket No. 2008-196-E

Dear Mr. Terreni:

Enclosed please find for filing and consideration the Friends of the Earth Motion  
to Intervene, together with Certificate of Service reflecting service upon all parties of  
record. Friends of the Earth supports the joint request by South Carolina Energy Users  
Committee and CMC Steel South Carolina for an alteration and extension of the  
hearing schedule in this important matter to more fully allow preparation for hearing.

With kind regards I am

Sincerely,



Robert Guild

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Encl.s  
CC: All Parties

PSC SC  
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BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2008-196-E

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In Re: Combined Application of South )  
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Base Load Review Order for the Construction )  
and Operation of a Nuclear Facility at )  
Jenkinsville, South Carolina )

**PETITION TO INTERVENE BY  
FRIENDS OF THE EARTH**

Friends of the Earth ("FoE"), on behalf of its members who will be adversely affected by the approval of the subject Application, hereby petitions the Commission pursuant to R. 103-825 of the Commission's rules to intervene and be made a party of record in the above-referenced proceeding. In support of this Petition, FoE would respectfully show:

1. South Carolina Electric & Gas Company's Combined Application for authority to build two new nuclear reactors at its V.C. Summer site in Fairfield County, South Carolina and for substantial rate increases to finance their construction is a risky and imprudent venture. The chosen reactor type, Westinghouse's AP1000, has never been built before and is undergoing continual design changes which threaten the Company and its rate payers with spiraling increases in construction costs and delays in the construction schedule. SCE&G's cursory analysis of the need for new generating

capacity and of the alternatives of increased energy efficiency and renewable sources such as solar and wind generation are grossly inadequate. Demand reduction and renewables are less costly and less risky than building new nuclear reactors. Additionally, since no long-term disposal facility for high-level nuclear waste exists, the operation of these new reactors will only increase the nuclear waste management risk to South Carolina. Finally, the massive withdrawals of cooling water required for the operation of these reactors will impose great stress on the Broad River ecosystem and human use of it. FoE is a non-profit environmental advocacy organization with members in all the 50 states including South Carolina and its headquarters in Washington, DC. FoE is affiliated with Friends of the Earth International, the world's largest environmental advocacy network with member organizations in 70 countries. FoE has worked for over 38 years to promote a healthy and just world and has been a leading advocate for safe and sustainable energy. It has worked to show how it is possible to shift the U.S. and global economies to a cleaner energy basis, using the latest in efficiency improvements, along with renewable energy sources such as wind, geothermal, and solar power. Members of FoE are ratepayers Applicant and neighbors of the site of the proposed nuclear facility. Members of FoE live, work, travel, recreate, use and enjoy natural resources in the vicinity of the proposed nuclear facility. They breathe the air, drink and use the water, eat food grown in the vicinity of the proposed project

2. FoE's members would be harmed by the approval of the subject Application because of unwarranted increases in their electric rates, reduced reliability of their electric service, risk to their health and safety from routine and accidental releases of

radiation, and harm to their use and enjoyment of natural resources which will be adversely affected by the approval of this Application, the subsequent costs associated with this project, and the construction and operation of the proposed nuclear facility.

3. The Combined Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity and for a Base Load Review Order for the Construction and Operation of a Nuclear Facility at Jenkinsville, South Carolina should be denied where, pursuant to the Utility Facility Siting and Environmental Protection Act, S.C. Code Ann. Sections 58-33-10, et seq., and the Base Load Review Act, S.C. Code Ann. Sections 58-33-210, et seq., the Applicant has failed to establish that: A) public convenience and necessity justify permission to proceed with initial clearing, excavation, dredging and construction, contrary to S.C. Code Ann. Section 58-33-110(7); B) the Applicant has failed to fully and accurately describe and establish a description of the facility to be built, the environmental impacts of the facility, the need for the facility, and other relevant information, contrary to S.C. Code Ann. Section 58-33-120; C) the Applicant has failed to demonstrate the basis of the need for the facility, the nature of the probable environmental impact of the facility, that the impact of the facility upon the environment is justified considering the state of available technology and the nature and economics of the various alternatives and other pertinent considerations, that the facilities will serve the interests of system economy and reliability, that there is reasonable assurance that the proposed facility will conform to applicable State and local laws and regulations, and that public convenience and necessity require the construction of the facility, contrary to S.C. Code Ann. Section 58-33-160; D) the

purpose of protecting customers of investor-owned electrical utilities from responsibility for imprudent financial obligations or costs will not be served, contrary to Section 1(A) of 2007 Act No. 16; E) the Applicant has failed to meet its burden of proof that the decision to build the plant was prudent; F) the Applicant has failed to fully and accurately describe and establish (1) information showing the anticipated construction schedule for the plant; (2) information showing the anticipated components of capital costs and the anticipated schedule for incurring them; (3) information showing the projected effect of investment in the plant on the utility's overall revenue requirement for each year during the construction period; (4) information identifying: (a) the specific type of units selected for the plant; (b) the suppliers of the major components of the plant; and ©) the basis for selecting the type of units, major components, and suppliers; (5) information detailing the qualification and selection of principal contractors and suppliers, other than those listed in item (4)©) above, for construction of the plant; (6) information showing the anticipated in-service expenses associated with the plant (7) information required by Section 58-33-270(B)(6); (8) information identifying risk factors related to the construction and operation of the plant; (9) information identifying the proposed rate design and class allocation factors to be used in formulating revised rates; (10) information identifying the return on equity proposed by the utility pursuant to Section 58-33-220(16); and (11) the revised rates, if any are requested, that the utility intends to put in place after issuance of the resulting base load review order, contrary to S.C. Code Ann. Section 58-33-250; G) the Applicant has failed to demonstrate that the utility's decision to proceed with construction of the plant is prudent and reasonable

considering the information available to the utility at the time, contrary to S.C. Code Ann. Section 58-33-270; and H) the Applicant has failed to demonstrate that plant will be used and useful for utility purposes, and that its capital costs will be prudent utility costs and expenses, contrary to S.C. Code Ann. Section 58-33-275.

FoE directs the Commission's attention, in particular, to the following issues raised by SCE&G's Application:

SCE&G Service Area and Customer Base Ill-Defined

4. It is unstated in the SCE&G Application whether if the Company plans to export power from its traditional approved service area. SCE&G stipulates in its application that "SCE&G operates an integrated electric utility system that serves over 643,000 customers in 24 counties in central and southern South Carolina. SCE&G's service territory includes the metropolitan areas of Charleston, Columbia, Beaufort, and Aiken and many other smaller cities and towns, and rural areas in South Carolina."

Yet, the Application does not explicitly state if only rate payers within this area will be served by the new nuclear units or if new rate payers outside the service area and perhaps outside the state are being or will be pursued. The Application thus needs to clarify if customers outside the service area would be served by the new nuclear units, either on the spot market or under long-term contracts. Rate payers within the service area must be assured that they will not pay for a facility used to service customers outside of SCE&G's traditional service area.

SCE&G Ignores Alternative Energy and Demand Side Management

5. SCE&G presents almost no analysis of the use of alternative sources of power.

In Exhibit H, page 3, SCE&G's analysis "Regarding Renewable Power" dispenses with "non-traditional" energy sources in less than a page of discussion.

Especially given great advances in solar electric generation and wind power, the Company is obligated to conduct a thorough analysis of the alternatives to the proposed nuclear project. Costs for solar are dropping rapidly and by the time the reactors would come on line, could well significantly undercut the nuclear-generated power.

Likewise, one of the largest growth sectors in the electricity industry is now wind generation, especially in Texas and the Great Plains. Installation or purchase of wind generating capacity must be analyzed further, as wind can be installed on a short time-line and without cost overrun risks and safety issues associated with nuclear power.

Just as alternative power sources are quickly rejected without proper analysis, energy conservation and efficiency likewise receive little analysis. The company admits that "SCE&G can efficiently meet as much as 209 MW of this increased demand through conservation, load-shifting, off-system purchases, renewable energy resources or through the installation of gas-fired peaking units," but in a chart (*SCE&G Forecast of Summer Loads and Resources - 2008 COL* in Exhibit G, it appears that low-cost

Demand Side Management (DSM) remains frozen at this small level at least until 2022, an indication that the reactor project will stymie DSM.

#### Cost of AP1000 Reactors Skyrocketing, Posing Great Risk

6. The cost of the reactor project will be astronomical and, given current



indicators, likely to spiral out of control. Nuclear power costs have doubled in the last two years and the per kW cost are rapidly climbing. In October 2007, Moody's Investor Service issued a report entitled *New Nuclear Generation in the United States: Keeping Options Open vs Addressing An Inevitable Necessity*, in which it calculated the cost of new reactors to be in the range of \$5000 to \$6000 per kW, representing a large increase in cost of new units over earlier estimates. According to Moody's, companies building new reactors will face significant increase in risks due to size and complexity of the reactors project, length of construction time and uncertainty about final costs. Moody's identified a number of bottlenecks in the reactor projects and concluded that "we believe the ultimate costs associated with building new nuclear generation do not exist today – and that the current cost estimates represent best estimates, which are subject to change."

SCE&G has estimated the project to cost \$9.8 billion and a recent report – *The Cost of New Generating Capacity in Perspective* - released by the Nuclear Energy Institute on August 6, 2008, estimated a cost of \$11.5 billion for the two reactors and states that cost for all nuclear reactor projects is uncertain given "the fact that design work is not complete and, until it is, it will be impossible to produce a precise cost estimate."

In Exhibit J, SCE&G confirms the unknowns of additional costs associated with transmission, which add significantly to the final cost of the project: "The actual transmission costs associated with the Units will depend on the final routing and design of the transmission facilities, the cost of right of way along the route chosen, the

schedule and cost of the right of way acquisition and siting processes, and the cost of transmission construction at the times the lines are built.”

Progress Energy Florida filed in March 2008 a Petition for Determination of Need with the Florida PSC for its proposed Levy nuclear power plant using the AP1000 reactor, estimating an overnight cost estimate for its two-unit project at \$14.0 billion. Florida Power and Light used cost estimate in its filing with the Florida PSC of between \$12 and 18 billion for construction of two AP1000 units.

In its August report, NEI goes on to state that “NEI’s modeling shows that, in the absence of a significant price for carbon, loan guarantees and supportive state policies (such as CWIP) are essential for merchant and regulated nuclear plants, respectively. Without this federal and state government support, it is difficult to see how new nuclear plants can be financed and constructed competitively.”

Yet, while NEI notes the importance of federal loan guarantees it appears that SCE&G may not be planning to pursue them. Mr. Stephen Byrne, Senior Vice President, Nuclear Operations, told the S.C. Governor’s Nuclear Advisory Council on June 12, 2008, during a presentation entitled “SCE&G Nuclear License Applications,” that the company had no plans to seek the controversial loan guarantees.

On August 4, 2008, Fitch Ratings dropped the rating of SCE&G from “stable” to “negative,” based on its pursuit of new nuclear units. A Business Wire report stated “The Negative Rating Outlook also recognizes the construction risk and uncertainties associated with projects of this size and complexity.” And, the report further stated that “credit quality measures are expected to trend downward throughout the construction

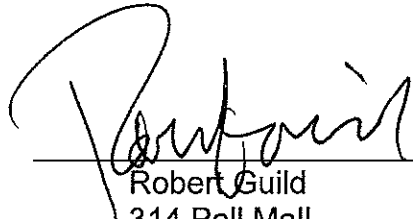
changing design will result in a repeat of the chaotic situation in the 1980s, when lack of design standardization resulted in massive cost overruns and schedule delays.

On June 27, 2008, the NRC stated in a letter to Westinghouse that a revised schedule for final design approval would not be issued until at least August 30, 2008. Thus, there is currently no updated schedule for design review. The schedule is likely to further shift, with a final design not being approved until 2012 or later.

While SCE&G rightly confirms the risk of constructing one of the first AP1000 reactors, it is likely that the Company has underestimated the challenges before it. Prudence dictates that the company should wait until design of the AP1000 is final before pursuing its construction. Given that no design will be final until 2012 or later, the Company has not presented a convincing case that Units 2 and 3 will be commercially operational in 2016 and 2019, dates based on overly optimistic assessment of how quick the new reactor design can be finalized and constructed.

WHEREFORE: For the foregoing reasons, Friends of the Earth, on behalf of its members who will be adversely affected by the approval of the subject Application, hereby petitions the Commission pursuant to R. 103-825 of the Commission's Regulations to intervene and be made a party of record in the above-referenced proceeding. The Combined Application of South Carolina Electric & Gas Company for a Certificate of Environmental Compatibility and Public Convenience and Necessity and for a Base Load Review Order for the Construction and Operation of a Nuclear Facility at Jenkinsville, South Carolina should be denied pursuant to the Utility Facility Siting and Environmental Protection Act, S.C. Code Ann. Sections 58-33-10, et seq., and the Base

Load Review Act, S.C. Code Ann. Sections 58-33-210, et seq.

A handwritten signature in black ink, appearing to read "Robert Guild", is written over a horizontal line.

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ATTORNEY FOR PETITIONER  
FRIENDS OF THE EARTH

August 13, 2008

BEFORE  
THE PUBLIC SERVICE COMMISSION OF  
SOUTH CAROLINA  
DOCKET NO. 2008-196-E

In Re: Combined Application of South )  
Carolina Electric & Gas Company for a )  
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Public Convenience and Necessity and for a )  
Base Load Review Order for the Construction )  
and Operation of a Nuclear Facility at )  
Jenkinsville, South Carolina )

CERTIFICATE OF SERVICE

I hereby certify that on this date I served the above Petition to Intervene by placing copies of same in the United States Mail, first-class postage prepaid, addressed to:

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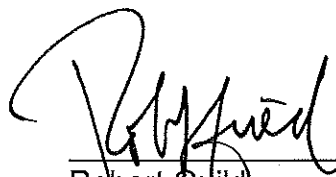
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August 13, 2008



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